Incomplete KINEROS results - DOS error messages provided

Posted by bjforsee - 2008/10/23 18:54

Hello

I was able to get KINEROS to run with a mrlc 1992 land use file. However, the results are incomplete or 0, depends on the run. When looking at the streams discretization file (after running the element parametizer), some of the attributes in the polyline attribute file are and I am wondering if that is the cause. In addition, new polylines are created at this step (element parametizer) which have all attributes having values.

When running the simulations in DOS in an instance when I got 0 for the results, I get the statement "error - AGWAshell
Can't open sss1.par"

When running the file in DOS in an instance when obtaining incomplete results, first I get

Processing plane (channel) element x ...while running

and then I get the message "error - invalid input block"

Any suggestions?

Also, I was unable to get tutorial 1 to work correctly. I was able to run SWAT 2000, although the results looked different.
I was unable to run SWAT 2005 in Windows, but I was able to run in it in the DOS window (calling the SWAT 2003_mod executable). For the KINEROS section, the delineation did not work correctly, for some reason the outlet was not correctly selected (point shapefile) although it was highlighted when I selected it with the cursor/rectangle, and the the watershed that was delineated was very, very small....no bigger than the point shapefile. The projections were the same.

Thanks

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Re:Incomplete KINEROS results - DOS error messages provided

Posted by bjforsee - 2008/10/27 19:42

Hello.

I have attached a .par file (there is a .par file created before the simulation step) and it ends abruptly. There is no "END CHANNEL" or similar statement like I have noticed in a working tutorial .par file. Perhaps this is why the file cannot be opened by KINEROS?

Thanks.

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Re:Incomplete KINEROS results - DOS error messages provided

Posted by bjforsee - 2008/10/27 19:50

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par file http://www.tucson.ars.ag.gov/agwa/images/fbfiles/files/par_file.zip

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Re:Incomplete KINEROS results - DOS error messages provided

Posted by bjforsee - 2008/10/29 21:57

Ok,

The thread titled "zero data" helped me out. The issue was in the Element Parameterization. I went back to the Discretizer and incrementally raised the CSA till all of the parameters (except elevation for planes) were filled, and that was at 15% (units of flow accumulation). And now the model runs and my results are "complete". The alternative proposed in that thread was to use a DEM with a different resolution, but this watershed outlet was not correctly located when delineating the watershed using a DEM with a lower resolution, so that option is out for me. As it stands right now, I only have 3 polylines in my stream file and 8 planes, I'm not sure that's enough detail???? I need to analyze the sediment yield. Do I have any other options besides changing the CSA or DEM model?

Thanks

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Re:Incomplete KINEROS results - DOS error messages provided

Posted by isburns - 2008/11/03 18:28

I'll try to address your problems in order.

The null values in some of the attributes and the newly created records in the stream attribute table are not necessarily problems. For the records that were already there, having several null values in the CONTRIB field is ok-these are 1st order streams with no other streams contributing to them. The newly added records should have null attributes for ARCID, GRID_CODE, FROM_NODE, TO_NODE, Shreve, Length, X_val, and Y_val. These records are essentially duplicates of the streams that have have two upstream contributors. The primary record is used to store one of the upstream contributors while the duplicate record is used to store the other.

Regarding tutorial 1, the shapefile representing the outlet for the KINEROS watershed does not lie on the stream, which is why the watershed delineation is so small. Instead of choosing the outlet, use the user-defined point tool and click on the stream (created from the stream grid tab on the delineator form) next to the outlet or change the radius from 0 to 30. For the SWAT results, the results may look slightly different as the tutorials haven't been updated in a while, so it shouldn't be a big problem.

Your parameter file is definitely not complete and you've already found the reason-one or more watersheds weren't split during the discretization process. From your parameter file it looked like you were originally using a 30m DEM; if you haven't tried a 10m DEM you should try that, when

recommending trying a different resolution DEM I think we meant to say higher instead of different. You should be able to get that from seamless.usgs.gov and it may give you better results. Alternatively, sometimes you can get lucky and lower the CSA and get the watersheds to split. Another option is using ArcGIS 9.2 if you're not already doing so. With the increase in precision in geodatabases in ArcGIS 9.2, splitting is much more successful, though not 100%, in ArcGIS 9.2 then in 9.0 or 9.1. Finally, you could locate the plane elements that aren't being split and try putting an internal gage via the discretizer right in the middle of the plane. I haven't tested this thoroughly to know how often it helps, but it has helped me in the past.

Shea

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